

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Dennis J. Schloeman et al.

Confirmation No.:

Application No.:

Examiner:

Filing Date: Herewith

Group Art Unit:

Title: FIRE PULSES IN A FLUID EJECTION DEVICE

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:  
☐ Statement under 37 CFR 1.97(e), or  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:  
☐ Statement under 37 CFR 1.97(e)(1) or (2), and  
☐ a \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account **08-2025** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2025** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Statement together with any required copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

"Express Mail" label no. **EV310988485US**

Date of Deposit **Nov. 17, 2003**

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By

Typed Name: **Kathryn Elseth**

Respectfully submitted,

**Dennis J. Schloeman et al.**

By

**Patrick G. Billig**

Attorney/Agent for Applicant(s)

Reg. No. **38,080**

Date: **Nov. 17, 2003**

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

10014406-3

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## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	4,437,752	3/1984	Akashi et al.	
	1B	4,463,359	7/1984	Ayata et al.	
	1C	4,595,935	6/1986	Brooks et al.	
	1D	4,596,995	6/1986	Yamakawa et al.	
	1E	4,695,853	9/1987	Hackleman et al.	
	1F	4,695,854	9/1987	Cruz-Uribe	
	1G	4,719,477	1/1988	Hess	
	1H	4,764,659	8/1988	Minami et al.	
	1I	4,982,199	1/1991	Dunn	
	1J	4,989,224	1/1991	Narahara et al.	
	1K	4,999,650	3/1991	Braun	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L	EP 0547921A2	6/1993	Arai, Atsushi et al.		
	1M	EP 0592221A1	4/1994	Hewlett-Packard Co.		
	1N	EP 0674993A2	10/1995	Hewlett-Packard Co.		
	1O	EP 1029674A2	8/2000	Hewlett-Packard Co.		
	1P	EP 1031421A1	8/2000	Copyer Co., Ltd.		

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	1Q	Allen, Ross R., "Ink Jet Printing with Large Pagewide Arrays: Issues and Challenges," Recent Progress in Ink Jet Technologies II, Chapter 2, pp. 114-120.
	1R	A copy of European Search Report for Application No. EP 02 25 0006 mailed on April 22, 2003 (3 pages).
	1S	A copy of European Search Report for Application No. EP 03 25 2564 mailed on August 13, 2003 (3 pages).

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	2A	5,016,023	5/1991	Chan et al.	
	2B	5,030,971	7/1991	Drake et al.	
	2C	5,049,898	9/1991	Arthur et al.	
	2D	5,057,854	10/1991	Pond et al.	
	2E	5,079,189	1/1992	Drake et al.	
	2F	5,098,503	3/1992	Drake	
	2G	5,103,246	4/1992	Dunn	
	2H	5,160,945	11/1992	Drake	
	2I	5,327,165	7/1994	Elliott	
	2J	5,363,134	11/1994	Barbehenn et al.	
	2K	5,365,312	11/1994	Hillman et al.	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	2L	EP 1080898A2	3/2001	Kenneth D. Saul		
	2M					
	2N					
	2O					
	2P					

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	2Q	
	2R	
	2S	

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	3A	5,371,530	12/1994	Hawkins et al.	
	3B	5,541,629	7/1996	Saunders et al.	
	3C	5,604,513	2/1997	Takahashi et al.	
	3D	5,610,635	3/1997	Murray et al.	
	3E	5,646,660	7/1997	Murray	
	3F	5,648,804	7/1997	Keefe et al.	
	3G	5,684,518	11/1997	Nobel et al.	
	3H	5,696,544	12/1997	Komuro	
	3I	5,719,605	2/1998	Anderson et al.	
	3J	5,742,305	4/1998	Hackleman	
	3K	5,751,302	5/1998	Rezanka	

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	3L					
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	4A	5,755,024	5/1998	Drake et al.	
	4B	5,803,628	9/1998	Donahue	
	4C	5,815,172	9/1998	Moh	
	4D	5,815,180	9/1998	Barbour et al.	
	4E	5,867,183	2/1999	Cornell et al.	
	4F	5,886,718	3/1999	Johnson et al.	
	4G	5,946,012	8/1999	Courian et al.	
	4H	5,975,667	11/1999	Moriguchi et al.	
	4I	6,002,420	12/1999	Tanioka et al.	
	4J	6,091,891	7/2000	Overall et al.	
	4K	6,109,716	8/2000	Takahashi	

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	5A	6,126,261	10/2000	Yamanaka	
	5B	6,178,009	1/2001	Yamada et al.	
	5C	6,186,611	2/2001	Shiraishi et al.	
	5D	6,193,345	2/2001	Feinn et al.	
	5E	6,290,333	9/2001	Wade et al.	
	5F	6,312,079	11/2001	Anderson et al.	
	5G	6,318,847	11/2001	Wade	
	5H				
	5I				
	5J				
	5K				

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